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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,753	10/06/2003	Martin Lambert	15540-010001 / 18.00277;	6623
26161 7590 03/06/2009 FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022				
EXAMINER				
ELVE, MARIA ALEXANDRA				
ART UNIT		PAPER NUMBER		
3742				
NOTIFICATION DATE		DELIVERY MODE		
03/06/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

### Office Action Summary

**Application No.**

10/678,753

**Applicant(s)**

LAMBERT, MARTIN

**Examiner**

M. Alexandra Elve

**Art Unit**

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1.5-13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1.5-13 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 7-8, 10-13, & 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioji, (USPN 5,763,855).in view of Pearson (USPN 253,622).

Shioji discloses a laser beam machine having nitrogen gas supplied to the optical path. A relief valve (35) is connected to a discharge port (chamber) (34). The pressure within the optical path cover of the optical system is kept higher than the atmospheric (outside air) pressure. It is possible to construct the optical path cover is such a way that part of the supplied gas can be discharged to the outside through an appropriate gap formed between the connection portions of some elements of the optical path cover. Thus is this embodiment in order to maintain the pressure within the optical path cover under a stable constant value, a discharge port is formed at a position of the optical path cover and further a relief valve is connected to this discharge port. Consequently, the inner pressure within the optical path cover can be maintained at a substantially constant level through the relief valve, even if the volume of the optical path cover is decreased or increased and thereby the inner pressure thereof is increased or decreased, for example when the laser beam head is moved.

Shioji discloses a relief valve but not the specific components of the valve.

Pearson discloses a pressure relief valve. The pressure relief valve has a disc with a central mount.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a pressure relief valve with a disc and pin as taught by Pearson in the Shioji system because this is merely a common embodiment of a pressure relief valve.

Claims 1, 5, 7-8, 10-13, & 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioji, (USPN 5,763,855).in view of Eibofner et al. (UK 2257910A).

Shioji discloses a laser beam machine having nitrogen gas supplied to the optical path. A relief valve (35) is connected to a discharge port (chamber) (34). The pressure within the optical path cover of the optical system is kept higher than the atmospheric (outside air) pressure. It is possible to construct the optical path cover is such a way that part of the supplied gas can be discharged to the outside through an appropriate gap formed between the connection portions of some elements of the optical path cover. Thus is this embodiment in order to maintain the pressure within the optical path cover under a stable constant value, a discharge port is formed at a position of the optical path cover and further a relief valve is connected to this discharge port. Consequently, the inner pressure within the optical path cover can be maintained at a substantially constant level through the relief valve, even if the volume of the optical path cover is decreased or increased and thereby the inner pressure thereof is increased or decreased, for example when the laser beam head is moved.

Shioji discloses a relief valve but not the specific components of the valve.

Eibofner et al. discloses a pressure relief valve. The pressure relief valve has a disc with a central peg.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a pressure relief valve with a disc and peg as taught by Eibofner et al. in the Shioji system because this is merely a common embodiment of a pressure relief valve.

Claims 6 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioji and (Pearson or Eibofner et al.), as stated above and further in view of Weick et al. (USPN 5,811,753).

Shioji discloses that the pressure within the optical path cover of the optical system is kept higher than the atmospheric (outside air) pressure, but does not teach dealing with an overpressure.

Weick et al. disclose a laser beam machine having a gas filled beam conduit. The beam conduit is filled with air and a limited amount of CO<sub>2</sub>. An adjustable outlet filter on the outlet hole is used to regulate/vent the excess pressure inside the beam delivery tube.

It would have been obvious to one of ordinary skill in the art at the time of the invention to regulate/vent excess pressure as taught by Weick et al. in the Shioji system because it keeps a constant pressure (stable constant value) in the optical path.

***Response to Arguments***

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 7:30-4:00 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu B. Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 1, 2009.  
/M. Alexandra Elve/  
Primary Examiner, Art Unit 3742